

Alabama PACT
12/31/2018 Quarterly Valuation
January 2019

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Alabama PACT Board

Sherman Actuarial Services, LLC (SAS) was retained to report on the funding status and projected cash flows of PACT as of December 31, 2018. Since this is a quarterly valuation, there is less detail provided than in the full valuation as of September 30, 2018. The Summary of Funding section on page 4 describes the current results and compares those results to the September 30, 2018 valuation.

Assumptions and Methods

1. Data and Assets

The valuation was performed using contract data supplied by the Plan Administrator as of December 31, 2018 and financial data reported to you as of December 31, 2018. SAS did not audit the data although they were reviewed for reasonableness and consistency with the audited September 30, 2018 information. The results of the analysis are dependent on the accuracy of the data.

The asset value as of December 31, 2018 was \$105,573,010.

2. Weighted Average Tuition (WAT)

The assumed WAT values are shown in the following table. The assumed credit hours were unchanged from the September 30, 2018 valuation at 13 hours per semester. The December 31st results are based on the weighting of PACT beneficiaries from recent experience, the 2010 tuition rates, and an increase of 3% as of September 1, 2015, an increase of 6% as of September 1, 2016, an increase of 8% as of September 1, 2017 and an increase of 7% as of September 1, 2018.

	September 30, 2018	December 31, 2018
	Valuation	Valuation
Auburn/Alabama	\$9,543	\$9,543
Regional	7,391	7,391
Junior & CC	4,276	4,276
OOS & Private	7,868	7,868

3. Tuition Inflation

For the December 31, 2018 valuation, we assumed a tuition inflation assumption of 0% per year.

4. Investment return

The investment return assumption was unchanged from the September 30, 2018 valuation as shown below.

Fiscal Year	September 30, 2018	December 31, 2018
<u>Ending</u>	<u>Valuation</u>	<u>Valuation</u>
2019	0.50%	0.50%
2020	0.50%	0.50%
2021	0.30%	0.30%
2022-23	0.00%	0.00%
2024	0.40%	0.40%
2025	1.60%	1.60%
2026	2.20%	2.20%
2027	2.60%	2.60%
2028	3.20%	3.20%

5. Payment of Tuition

The December 31, 2018 valuation assumed usage of 128 credit hours at a rate of 13 hours per semester, which is the same as was assumed for the September 30, 2018 valuation.

6. Education Trust Fund Payments

We assumed total future contributions of \$347,100,000 from the Education Trust Fund into the PACT Trust Fund. These payments have a present value of \$305,839,970.

7. Cancellations

The assumed cancellation of PACT contracts based on the grade of the beneficiary was unchanged from that assumed as of September 30, 2018 and are shown below.

Age 0 through 9th grade	0% per year
10th grade	1%
11th grade	1%
12th grade	1%

8. School Choice

Contract beneficiaries are assumed to attend school according to the probabilities shown in the following table:

<u>College Type</u>	<u>September 30, 2018</u>	<u>December 31, 2018</u>
Private/Out-of-State	17%	17%
Community College	15%	15%
University of Alabama and Auburn University	53%	53%
Other Alabama Universities	15%	15%

9. Administration Expenses

For the December 31, 2018 valuation, we assumed the administrative expenses will be \$450,000 for the remainder of FYE18, \$600,000 for future fiscal years through 2027. From 2028 to 2031 it is lowered \$100,000 per year.

10. Discount Rate

For the December 31, 2018 valuation, we assumed a discount rate of 3.5% to determine the present value of payments to be received and benefits to be paid.

11. Other

All other assumptions and methods are identical to those used in the September 30, 2018 actuarial valuation.

Purpose of This Report

This report is prepared for the PACT Board. It is expected that this report will be used to monitor the funding status and projected cash flows of the PACT. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of SAS.

Qualifications

Daniel Sherman is an Associate of the Society of Actuaries, and a Member of the American Academy of Actuaries. He served as the actuary to the Alabama PACT plan for eleven years, and is the current actuary for the Texas, and West Virginia prepaid tuition programs. He meets the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

SHERMAN ACTUARIAL SERVICES, LLC



Daniel Sherman, ASA, MAAA
CEO and Consulting Actuary

Summary of Funding

The table below is a summary of the results showing the total costs to maintain the program as of December 31, 2018. Note that although the funded status is 123.6%, the cash flow projections show that the fund will need to be monitored in order to maintain sufficient assets.

	September 30, 2018 Annual Valuation	December 31, 2018 Valuation
Assets		
a. Market Value of Assets	99,190,043	105,573,010
b. Present Value of future contract purchaser payments	5,991,869	5,447,482
c. Administrative Expenses	(5,740,589)	(5,591,673)
d. Present Value of Education Trust Fund payments	322,237,628	305,839,970
e. Subtotal (a + b + c + d)	421,678,951	411,268,789
Liabilities		
f. Present Value of tuition and cancellation payments	349,833,875	331,703,387
Funded Status		
g. Reserve (e – f)	71,845,076	79,565,402
h. Funded Ratio	120.2%	123.6%

Projected Cash Flow
December 31, 2018 Valuation
(millions)

Fiscal Year	Benefit Payments	Contract Holder Payments	Education Trust Fund Payments	Admin Expenses	Income	EOY Assets
12/31/2018						\$ 105,600
1/1/19 - 09/30/19	-\$ 41,400	\$ 2,100	\$ 45,000	-\$ 450	\$ 450	111,300
10/01/19 - 09/30/20	-75,000	1,700	60,700	-600	400	98,500
10/01/20 - 09/30/21	-64,300	1,000	31,900	-600	200	66,700
10/01/21 - 09/30/22	-55,500	500	32,200	-600	0	43,300
10/01/22 - 09/30/23	-44,600	200	33,500	-600	100	31,900
10/01/23 - 09/30/24	-30,200	100	33,700	-600	100	35,000
10/01/24 - 09/30/25	-20,200	0	38,400	-600	700	53,300
10/01/25 - 09/30/26	-14,100	0	39,200	-600	1,300	79,100
10/01/26 - 09/30/27	-9,200	0	32,500	-600	2,300	104,100
10/01/27 - 09/30/28	-6,200	0	0	-500	3,200	100,600
10/01/28 - 09/30/29	-3,900	0	0	-400	3,100	99,400
10/01/29 - 09/30/30	-2,000	0	0	-300	3,100	100,200
10/01/30 - 09/30/31	-800	0	0	-200	3,100	102,300
10/01/31 - 09/30/32	-100	0	0	-100	3,300	105,400
Total	-\$ 367,500	\$ 5,600	\$ 347,100	-\$ 6,750		

The sum of the values may not match the total shown due to rounding.

Assumptions

- Settlement
- Fall 2010 Tuition rates, increased 3% as of September 1, 2015, 6% as of September 1, 2016, 8% as of September 1, 2017, 7% as of September 1, 2018
- Tuition Inflation at 0%
- Normal Cancellation rates